REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Amendments to Claims

Claims 1 and 34 have been amended to recite method steps (specifying, providing, *etc.*) rather than "instructions." In addition, the connection resource tracker is recited included in at least one of the network elements, as illustrated in Fig. 2, and that report generation only occurs if at least one of the resources has an attribute that is above the threshold, as indicated by the "Y" arrows leading to block 58 in Fig. 3 (or block 76 is Figs. 4-7). The claims are otherwise unchanged.

Because the changes are all formal in nature and/or clearly supported by the original specification and drawings, it is respectfully submitted that they do not involve "new matter."

2. Rejection of Claims 1-4, 6-20, 22-34, 36-39, and 41-44 Under 35 USC §103(a) in view of U.S. Patent Nos. 7,143,153 (Black), 6,834,304 (Nisbet), and 6,088,688 (Crooks)

This rejection is respectfully traversed on the grounds that the Black, Nesbit, and Crooks patents, whether considered individually or in any reasonable combination, fail to disclose or suggest a method, processor, or medium for monitoring resource utilization within a switch in which:

- reports generated in response to an operator query **by resource "type**,"and
- the reports are **limited** to identification of resources having **attributes that exceed a threshold** (as now claimed, the report is only generated "if the utilization is above the corresponding utilization threshold for at least one said resource"),

as recited in each of independent claims 1, 17, 33, 34, 39, and 44. In contrast, the Black patent discloses generation of non-limited utilization reports upon querying specific resources, rather than types of resources, or generation of "alarms" that are not in response to operator queries, while Nisbet only concerns identification of element malfunctions and Crooks is concerned with

a central database rather than reporting resource utilization by individual network elements. None of the three patents addresses the problem solved by the present invention, which is to simplify operator selection of resources to be monitored, and of limiting the amount of data that the operator must deal with after making a query.

Initially, it is noted that the claimed invention is not the provision of a connection resource tracker, or even the sending of a resource utilization report in response to an operator query. Both the connection resource tracker and the reporting of resource utilization are admitted to be "prior art" in paragraph [03] of the present application. To the contrary, the problem solved by the present invention is that the conventional connection resource tracker provides too much information to the operator. In order to check resource utilization, the operator is required to select resources to be checked, *whether or not there is a resource utilization problem*, and then sift through the resulting data.

The Black patent describes exactly the type of conventional resource tracking referred to in paragraph [03] of the present application. As explained in col. 167, lines 65 *et seq.* of the Black patent:

> *In one embodiment,, to establish a threshold evaluation for a resource attribute, a user (e.g., a network manager) selects a resource in graphical user interface (GUI) 895 (FIGS. 66a-66e) and then selects a Threshold menu option 1054 to cause a Threshold dialog box 1056 (FIG. 67) to be displayed. For example, a user may select SONET Path 942a (FIG. 66a), ATM Interface 946b (FIG. 66b), Virtual ATM Interface 947c (FIG. 66c) or Virtual Connection 948a (FIG. 66d) and then Threshold menu option 1054 to cause a Threshold dialog box 1056 (FIG. 67 to be displayed. . .The Threshold dialog box may include many different elements. In one embodiment, the Threshold dialog box includes a Resource element 1056a, an Attribute element 1056b, a Threshold Rule element 1056c, a Sampling Frequency element 1056d and an Action element 1056e. . . .*

That's a lot of selections, and a lot of resulting data.

While col. 170, lines 25-38 of the Black patent provides a little relief for the operator, in the form of "**threshold groups**" associated with **multiple resource IDs**, Black's grouping of

resources with similar attributes does not relieve the operator of the need to select all resources in the group. To the contrary, this passage in Black does not change the way resources are selected, but rather combines rows in the Dynamic Threshold table in order to eliminate redundant data *output*. **There is no disclosure in Black of selecting resources by "type," as claimed, much less of reducing the report volume by only reporting, when a query is made by the operator, resources that exceed thresholds**.

In contrast, the claimed invention does not require the operator to make any specific resource selections or queries, and does not need to combine table entries in order to reduce the amount of data returned in response to a query. Unlike the arrangement of Black, the operator of the claimed invention is not required to check boxes in a GUI corresponding to specific resources, and furthermore to check specific attributes or elements of the selected resources. Instead, according to the claimed invention, when a query is made, the connection resource tracker automatically checks all resources of the same "type," thereby greatly simplifying resource selection. Furthermore, instead of coming back with a mountain of data on all of the checked resources, the connection tracker of the claimed invention only generates reports when a threshold is exceeded.

It is true that, in addition to the above quoted operator query procedure, Black provides for automated notification to the operator of critical failures. However, Black's automatic notification of critical failures is not the same as the claimed automatic checking of all resources of a particular "type" at the request of the operator. Automatic notification in the absence of a query is useful only for very critical problems. If the threshold for automatic notification is set to low, then the operator will constantly be receiving e-mails or pages, which could be quite annoying.

Thus, the differences between the claimed invention and the arrangement disclosed in the Black patent are as follows:

Claimed	The Black Patent

All resources of a particular type checked upon operator query.	Operator selects specific resources or groups of resources through GUI
Reports resulting from operator query include only those resources and attributes for which threshold is exceeded	In addition to operator-initiated reports, which are *not* limited to resources for which a threshold is exceeded, alarms may be issued in the absence of an operator query.

The Examiner will note that all of the embodiments of the present invention generate reports (or alarms) in response to an operator query only when the threshold is exceeded (or, if the threshold is a lower limit, when the attribute is below the threshold). For example, the method of Fig. 3 of the present application only adds to a report when the threshold is exceeded, and only sends the report after all resources have been checked and it is not possible to select another resource. The same is true of the alarms of Figs. 4-6. The purpose of this specific combination of **operator query** and **limited report scope** is to make life easier for the network operator. Black has no such concern, except to the limited extent indicated in col. 170, lines 25-49, which combines data entries for groups of resources. While Black's alarms are similar to the reports of the claimed invention, they are not issued in response to operator queries.

These deficiencies are not made up for by the **Nesbit** and **Crooks** patents. The Nesbit patent merely discloses the generation of audit reports by creating files of network elements which are operating outside valid operating ranges, and does not suggest modifying Black's system to limit resource capacity reports to resources having attributes that exceed thresholds, as claimed, while Crooks is directed to a resource utilization database that can be directly queried by an operator rather that an individual network element query and reporting procedure, much less one that solves the above-mentioned problems with the Black system (the Examiner will note that the claimed database is actually maintained by the connection resource tracker, which is part of the network element or "switch").

Because the Black, Nesbit, and Crooks patents, whether considered individually or in any reasonable combination, fail to disclose or suggest a method, processor, or medium for monitoring resource utilization within a switch in which reports generated in response to an operator query by resource "type" are limited to identification of resources having attributes that exceed a threshold, as claimed, withdrawal of the rejection under 35 USC §103(a) is respectfully requested.

Having thus overcome each of the rejections made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

Respectfully submitted,

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Date: June 23, 2008

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